



THE RULE OF LAW AND MEXICO'S ENERGY REFORM

**The Implementation of the Energy Reform and
Socio-environmental Conflicts Regarding Hydrocarbons in Mexico**

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About the Study: The Rule of Law and Mexico's Energy Reform/Estado de Derecho y Reforma Energética en México

The 2013 changes to the constitutional framework and the summer 2014 enabling legislation in Mexico's energy industry represent a thorough break with the prevailing national narrative as well as the political and legal traditions of twentieth century Mexico. Mexico is about to embark on an unprecedented opening of its energy sector in the midst of important unknown factors, as well as a fiercely competitive and expanding international energy market. Mexico is one of the last developing countries to open its energy sector to foreign investment, and although there are important lessons that can be learned from other countries' experiences, this does not imply that the opening will be necessarily as successful as the government promises or that the implementation of the new laws will go smoothly. Almost certainly, after the enabling legislation goes into effect, important questions of law will emerge during the implementation, and unavoidably, refinements to the legislation will have to take place.

The book "Estado de Derecho y Reforma Energética en México," published in México by Tirant lo Blanch and written in Spanish, is the culmination of a major research effort to examine rule of law issues arising under the energy reform in Mexico by drawing on scholars and experts from American and Mexican institutions in order to bring attention to the different component parts of the new Mexican energy sector from a legal standpoint.

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This essay addresses the transcendental energy reform in Mexico from a socio-legal perspective that analyzes the possible scenarios of socio-environmental conflict that may arise during the implementation process, which is currently underway, as well as the probable institutional responses. For such purpose, these reflections will focus on the hydrocarbons industry, the area which I believe will experience the greatest variation and concentration of social-environmental conflict over the short and medium term.

The change of the regulatory paradigm for hydrocarbons is accompanied by significant transformations in the structure of the political and social environment in which the industry will operate. Previously, the state monopoly represented by the Mexican company Petróleos Mexicanos (PEMEX) operated in an environment that was mainly characterized by: a) a public discourse that promoted a development model based on oil dependency; b) public acceptance of the social and environmental impact resulting from the work of PEMEX; and c) PEMEX's opacity with respect to its operations.

Despite the fact that the socio-environmental conflicts related to energy matters in other Latin American countries have multiplied since the 1990s and continue until the present, the three characteristics listed above allowed PEMEX's activities to have a low incidence and perception of scarce conflict. Within the context of a liberalized energy sector, it is noted that such characteristics will hardly be maintained; therefore, there is a higher risk of the emergence and visibility of socio-environmental conflicts. The distance that the State will maintain with respect to the new economic players, a public opinion that is more critical of the socio-environmental impact of energy and extraction activities, and greater transparency in the sector make it possible to foresee the emergence of a social context with greater conflict, which will bring Mexico closer to a scenario similar to cases in other parts of Latin America.

The new legislation establishes some conditions to decrease risks, such as the inclusion of residents' right to be consulted and compensated for the use of community land for extractive activities. Even in this manner, it is foreseen that Mexico will have to accept a future with greater socio-environmental conflict. It is predicted that, in addition to the traditional extra-institutional arrangements to resolve such conflicts and the *expertise* of the new players who will participate in the sector, an avenue for resolving conflicts through the judicial system will be created. Greater institutional autonomy with respect to the executive branch, a new constitutional paradigm guided by international human rights laws, the introduction of collective or class action proceedings, and the reform of *amparo* proceedings would make Mexican judges arbitrators of the predicted new socio-environmental conflicts regarding energy issues.

Socio-environmental Conflicts in Latin America

Latin America has a long history of conflict over natural resources. Control over the utilization of water, minerals, gas, and oil represents an economic, political, and social dynamic that defines the nations' respective histories in a way that contrasts with occurrences in the northern part of the world.¹ Since the 1990s, the discussion regarding

the use of natural resources in connection with development in the region has taken on the form of socio-environmental conflicts. According to Guillaume Fontaine:

“In the 1990s, the development of international and domestic law led to greater consideration of environmental protection and greater recognition of the rights of the affected populations. This phenomenon not only affected the practices of NGOs and other defenders of the environment, human rights, or rights of indigenous people, but also the policy of multilateral organizations and that of the State in Colombia and Ecuador. This development can be interpreted in one of two ways: that the NGOs played a decisive role in the change of the practices of economic players, or that the latter assumed a growing commitment on a social level, imposed upon them by public policies and the need to improve their image to reflect a ‘new corporate culture.’ Either way, this is the context within which the resolution of socio-environmental conflicts went beyond the social and community domain to make its way into the political and legal arena, both domestically and internationally.”²

Socio-environmental conflicts may involve the State, companies, communities, farmers, residents, and activists.³ Each of them has a different approach with respect to natural resources and extractive activities. For the State, natural resources are a means of development. For companies, natural resources represent a consumable good that is the basis of their productive activities, extraction, and trading. For communities and farming residents, natural resources are not a means, but rather an integral part of their very lives and worldview. Finally, for nongovernmental organizations, natural resources are susceptible to beneficial use, only if the rights of the communities are not seriously violated and no extensive environmental impact is caused because of their utilization.⁴

Latin America has a specific context that has resulted in socio-environmental conflicts taking on characteristics that are different from conflicts in other regions of the world.⁵ In the Northern Hemisphere, there is an important movement toward an environmentalist vision that emphasizes natural preservation and the need to reduce the negative ecological impact of extractive activities. This concern in Latin America—and, in general, in the Southern Hemisphere—is joined by worry over the impact on communities and populations living in the locations where such activities are conducted, as well as by the frustration that little of these resources remain for local development.⁶ The economic dynamics within which the extraction of resources occurs creates significant social tensions in the extraction sites in the Southern Hemisphere.⁷

As a result of the high impact caused by energy-related extraction activities, the socio-environmental conflicts surrounding them are particularly fierce.⁸ For the region, energy projects entail risks such as “contamination of soils and waters, consecutive colonization through the penetration of roads in areas of primary forests and indigenous territories, as well as the exacerbation of social tensions that are caused by the enclave economy that is created through petroleum activities.”⁹

Add to this set of problems the fact that Latin American societies have been inefficient in terms of constructing an industrial apparatus that allows the communities themselves to extract and utilize the natural resources and spread the benefits to their members. In general, they are societies that also are critical of industrial extractive activity using foreign capital.¹⁰ Furthermore, in the Americas, indigenous communities have organized to challenge the exploitation of natural resources, and their claims are supported by a network of international organizations with a great capacity for mobilization.¹¹

Socio-environmental conflict in Latin America is one of the most relevant topics on the national political agenda, even as the problems materialize at the local level. A significant part of the recent growth of the human rights discourse in the region is due to its usefulness as a defense mechanism against extractive activities. In these countries, the dispute with respect to socio-environmental conflict has become professionalized, and significant networks of activists as well as attorneys specializing in these cases have been set up. At the same time, the judiciary has been incrementally involved in the resolution of such conflicts. In addition to the judicialization of these conflicts, which creates high economic costs for those involved, the high degree of conflict produces a similar growth of the issue at the national political level and in terms of public opinion, and can even cause strong tensions in international relationships whenever such conflicts involve companies with foreign capital.¹²

Why is There a Perception of Low Socio-environmental Conflict With Respect to Hydrocarbons in Mexico?

Unlike what happens in other regions in Latin America, it is difficult to remember any socio-environmental conflict regarding hydrocarbons that impacted the national agenda in Mexico. This is not because there are no socio-environmental conflicts in the country: like what has happened in the rest of the region since the end of the 1990s, with the increase in the social structures of dispute, conflicts have increased as well. Cases regarding the contamination of rivers due to mining activities, the control and beneficial use of waters, or the construction of hydroelectric dams are frequently found both in newspaper headlines as well as on the Supreme Court's agenda.¹³ However, no issues have impacted public opinion in a manner that forced discussion on the clash between the rights of communities, environmental impact, and industrial hydrocarbons extraction activities. Not even nongovernmental organizations in the region have these issues on their agenda.¹⁴

In Mexico, the visibility of socio-environmental conflict caused by industrial hydrocarbons activities is low, despite the fact that it is an important oil-producing country on a worldwide level. Trying to explain this situation is complicated, although it is easier to understand when examining the interactions between the State, Mexican society, and PEMEX regarding the hydrocarbons industry from a sociological perspective. The main argument is that socio-environmental conflict in Mexico was attenuated and sometimes rendered invisible through a combination characteristics, described below.

Hydrocarbons as a Public Discourse Concerning National Development

The discourse regarding economic and social development was important for the political configuration of governments worldwide in the twentieth century. In the case of Mexico, the post-revolutionary society found its identity in oil development, an identity that began to weaken in general with Mexico's entry into global markets in the late twentieth century and which has started to disappear since the approval of the energy reform in 2013.

Lázaro Cárdenas, president of Mexico between 1934 and 1940, nationalized the petroleum industry (1938). In addition, he was the architect of the idea of developing Mexico around this industry. The global context prior to the Second World War, which was highly industrialized and demanded oil, allowed Cárdenas and his team to envision the importance of oil for the global economy and the growth of the country.¹⁵

Cárdenas was one of the Mexican presidents with the greatest success in terms of a long-term vision. In addition to betting on the petroleum industry as the motor for the country's development, he attempted to resolve the long-standing problem of land ownership through the implementation of an agrarian distribution plan. His vision was not solely focused on the economic issue; he gave his political party an institutional identity by grouping the corporate bodies within the Mexican Revolution Party.¹⁶ His work modernized public administration: he removed the revolutionary generals from the political arena to empower a young bureaucracy, and extended the presidential term from four years to six years to allow the ruling president to organize a significant government project.

Cárdenas was turned into a legend by the Mexican political class, viewed as the one responsible for moving the country toward modernity, based on four pillars: land, education, oil, and sovereignty.¹⁷ Until very recently, March 18, the day the oil expropriation was established, was considered a national holiday in Mexico. For a long time, the true hero of the Mexican Revolution was neither of the war-winning generals but rather Cardenas, the general who managed to consolidate a successful development project for the country.

Even though the subsequent governments did not follow up on many of his social projects, his promotion of a long-term vision regarding development is considered the basis for what, in economic history, is called the "stabilizing development" or the "Mexican miracle," a period of 30 years—from 1940 to 1970—during which the Mexican economy enjoyed unparalleled prosperity.

The legacy of General Cárdenas continues to be one of the greatest legends of the Mexican political class. In the announcement of his constitutional reform initiative for the energy sector, President Enrique Peña Nieto alluded to Cárdenas' legacy and claimed that his reform project aligned with the ideals of Cárdenas.¹⁸ The Mexican political parties, mainly those center and left ideologically, respect his image and legacy. In the political discourse in Mexico, oil was not only a natural resource, but rather symbolized, for a long time, the possibility of development and modernization in the country.

The economic opening of Mexico toward private investment since the 1990s modified the nation's development model and steered it toward integration with the global market and free trade principles.¹⁹ At the time when the country's entry into the North American Free Trade Agreement taught Mexicans a new developmental paradigm based on global markets, the emergency of the 1994 Zapatista Uprising in Chiapas started to show the weaknesses of the national development discourse from a local context.²⁰

Step by step, as can be corroborated in other essays of this volume, the energy sector was opening up areas of participation for private investment within activities managed by PEMEX.²¹ In spite of this, PEMEX maintained its monopoly over the hydrocarbons sector until the 2013 reform as the pillar of Mexico's development ideal, accompanied by the Mexican economy's dependency on oil almost 20 years after NAFTA. As soon as the hydrocarbons industry has been fully opened up to private investment, it will be very hard to connect PEMEX with the discourse of national development, at least insofar as activities conducted by new relevant economic players other than PEMEX are concerned, which might make the continuation of the development discourse difficult for much more time to come.²²

Acceptance of Domestic Public Opinion Regarding the Social and Environmental Impact Caused by PEMEX through Its Local Activities

Public opinion in Mexico supported the extractive activities conducted by PEMEX and accepted the socio-environmental impact generated by hydrocarbons as one of the necessary costs involved in the production of wealth. One of the prevailing ideas in the relationship between oil and development in the country was that modernization entails similar and unavoidable social and environmental costs.²³

Finding data that support this argument is complicated because public opinion studies did not become popular in Mexico until the last decade. The idea that society and public opinion have a high degree of acceptance of hydrocarbons extraction activities is based on qualitative aspects. For example, until the 1990s, the anniversary of the oil expropriation was a national holiday and, therefore, government employees and schools were off; textbooks described the petroleum expropriation as an act of national sovereignty that permitted national development. Even in the murals great artists of the past century like Diego Rivera and David Alfaro Siqueiros painted in city halls, oil and petroleum are shown as symbols of the modern character of the Mexican nation.

Currently, Mexicans' perceptions of PEMEX and its extractive activity continues to be positive, even though this approval is not unanimous. In a 2013 survey by the Center of Social Studies and Public Opinion regarding Mexicans' opinions of PEMEX, 6 percent said they had a *very good* opinion, 33 percent indicated *good*, 25 percent *regular*, 22 percent *poor*, and 10 percent *very poor*. The survey also asked: "How proud are you of PEMEX?" About 16 percent of the respondents said *very proud*, 28 percent a *little proud*, 24 percent *somewhat*, and 30 percent *not at all*. This survey shows that two out of three Mexicans have a favorable opinion and feel proud of PEMEX.

In 2008, the National Autonomous University of Mexico (UNAM) and PEMEX conducted a study regarding social involvement strategies for petroleum activity related to the *Tertiary Gulf Oil project*.²⁴ The results illustrate what happens on a local level, outside of the national discourse, in terms of interaction between residents of communities where the industry operates. The study was conducted in 13 municipalities in the states of Veracruz, Puebla, and Tamaulipas, which are located in the Gulf of Mexico region; the survey included a total of 6,485 people, with 90 in-depth interviews and 10 focus groups.

PEMEX's trade union and executives are not perceived to be trustworthy by the general population. On a scale of 0 to 10 for the question "How much do you believe what they say?" the trade union obtained an average score of 6.31 and PEMEX executives 6.23. These scores are better than those of police officers, deputies, senators, and political parties, but much lower than those of officials and entities at the top of the list (teachers, the army, the Catholic Church, human rights commissions, and NGOs).

In response to the question regarding phrases that are associated with PEMEX, the population relates PEMEX positively with "temporary work," "oil, industry, job center for workers," and "PEMEX is for the workers of PEMEX." In terms of negative associations, the following phrases emerged: "bureaucratic, difficult, and creates obstacles"; "gives you money, but charges you, because it destroys the ecology"; "nothing more than reputation and poorly set up, because it no longer is what it claims to be"; "only oil, because oil means a benefit, but what are we getting out of this?"; "corruption, nepotism, employment"; "disorder, contamination, and lack of equality, because they take the money and leave nothing behind."

The population perceives that the main advantages of PEMEX's presence in the community are more jobs (25.3 percent), economic growth (17.2 percent), better roads (12.1 percent), social assistance (10.1 percent), and medical services (8.3 percent). The main disadvantages of PEMEX's presence are explosions and leaks (29.7 percent), contamination (27.6 percent), corruption (5.5 percent), lack of maintenance (5.3 percent), and no hiring of local people (5.2 percent). In addition, 10.2 percent stated that there were no disadvantages.

Further, 37.2 percent of respondents have a *good* image of PEMEX, 32.2 percent an *average* image, and 30.7 percent a *poor* image. In terms of PEMEX's operations, 4.3 percent of the population stated that it was *very good*, 34.4 percent *good*, 30.4 percent *neither good nor bad*, 19.5 percent *bad*, 3.7 percent *very bad*, and 7.7 percent did not know. In terms of the improvement in the living conditions of the general population due to PEMEX's presence in the region, 8.5 percent said that living conditions had improved *a lot*, 12.9 percent *somewhat*, 32.4 percent a *little*, and 3.4 percent *not at all*.

The general public perception of PEMEX has gone down over time, even though PEMEX remains, in the social imaginary, one of the institutional pillars of the country. The recent global oil price crisis as well as the liberalization of the sector have caused the company's reputation to cease to be a central political issue. The new reality of the industry might allow this formerly massively favorable opinion of PEMEX's actions on a national level to

become built more on the new relationships PEMEX and the other companies participating in the energy sector establish at the local levels.

Opacity in the Actions of Petróleos Mexicanos

The opacity of PEMEX's actions contributes to the fact that the public knows very little about the socio-environmental conflicts caused by its industrial activities. Submerged in the national development discourse, local conflicts have not received any attention by the public, partly because there is very little information available regarding PEMEX's work and partly because, with a few notable exceptions, little specialized investigative journalism is conducted in Mexico.

PEMEX and its branch offices accounted for 4.75 percent of the appeals for review filed with the Federal Institute of Access to Information (today the National Institute of Access to Information) between 2003 and 2014; thus, PEMEX accrued the second-highest number of claims of denials or statements of non-existing information across the entire public sector, behind only the Mexican Armed Forces.²⁵

One example of PEMEX's opacity is the recommendation by the National Human Rights Commission regarding the issue filed by *Contralínea* magazine against the public oil company. A group of journalists and executives from *Contralínea* and *Fortuna* magazines complained to the National Human Rights Commission that "between November 2004 and August 2008, it carried out journalistic research and publications that involved irregular acts by officials and contractors of PEMEX" and that "based on this journalistic work, we have been the target of harassment and threats by executives and attorneys of the companies that were involved in the newspaper reports."²⁶ The journalists were sued before the judiciary branch of the State of Jalisco and, among other actions, PEMEX suspended purchases of official advertising in the magazines and prohibited its officials from granting interviews to the outlets.

In its ruling regarding the case, the National Human Rights Commission concluded that the rights of the journalists had been violated, based on the following: "Petróleos Mexicanos has no objective, clear, transparent, and non-discriminatory procedures and criteria for the allocation of official advertising." Furthermore, it deemed that "the public officials of Petróleos Mexicanos, through their conduct, failed to comply with the rules set forth in Articles 134, Paragraph Seven, of the Political Constitution of the United Mexican States, which imposes a duty upon all public officials to impartially apply public resources under their responsibility."

The *Contralínea* case shows that PEMEX's policy for allocating public resources for advertising responded to a logic of strict control over public communication. As a result of the reform and the liberalized hydrocarbons sector, and in the absence of a powerful state-backed company such as PEMEX, it certainly is more complicated to maintain iron-fisted control over information and the allocation of resources for advertising in the media.²⁷ It is likely that we will find out more about socio-environmental conflicts in energy matters that occur at the local level, and in all likelihood, the door will open for

the emergence of specialized journalism covering the activities of the energy industries, which will act with increased freedom. More information will increase civic knowledge regarding the occurrence of relevant socio-environmental conflicts as the media broadcasts these types of problems more widely; over time, this will increase analysis of energy industry activities from a local context, a change that the new players in the industry must very much keep in mind.

New companies using both domestic and foreign capital to participate in the hydrocarbons sector must be attentive to this situation, because in all likelihood, they will not enjoy the lax scrutiny PEMEX experienced in terms of public opinion. Further, in a number of sectors, private participation, especially that of foreign capital, is viewed with a negative connotation.

Socio-environmental Conflicts and Institutional Responses Today and into the Future

Despite the low incidence and low visibility of socio-environmental conflict related to hydrocarbons, it is possible to find examples of such challenges in the Mexican history. There have been urban and rural socio-environmental conflicts, even though there is little information available about them. In general, public opinion paid more attention to the environmental tragedies in urban centers in the 1980s and 1990s than to situations that generated extensive damage to the environment and communities where much of the petroleum industry operates, mainly on the coast of the Gulf of Mexico.

To date, institutional responses to socio-environmental conflicts in Mexico have been more political than legal. Characteristic of the Mexican corporatism that has survived until the present, most socio-environmental conflicts are resolved informally, through extra-institutional arrangements involving PEMEX executives, representatives of local governments, the petroleum trade union, and the communities or small land owners without, as noted above, any academic or documentary investigations reflecting these processes.

One common way to handle conflicts over the use of land where the industry operates or where the damage caused by its transit occurs is to grant economic benefits to the community, provide public services such as energy or paving, or hire a certain number of local residents to work for the company. Negotiations regarding socio-environmental conflicts in rural areas takes on some of the traditional forms of the PRI-based Mexican corporatism, even though the party no longer has representatives in many areas of the country.

PEMEX has exercised broad decision-making capacity in negotiating with local communities and small landowners, which no other company has had. PEMEX is a priority for the federal and local governments, and as such, has enjoyed the ability to use a wide variety of economic and political resources. Whenever PEMEX's negotiating capacity has failed, the Mexican public institutions assigned to resolve conflicts became involved. Several of the complaints have been processed by the National Human Rights Commission

(CNDH), which issued recommendations against the company's activities, all of them in rural areas. The conflicts reported by the CNDH are examples of the contemporary configuration of these tensions in the areas where the Mexican petroleum industry operates, which the new participating players must take into account. One important element is that, until now, the judiciary has not had a significant role in the resolution of socio-environmental conflicts regarding hydrocarbons, unlike, for example, in the case of conflicts regarding mining or control of waters.

Urban Socio-environmental Conflicts

The ecological tragedies that occurred in urban areas led to changes in industrial and environmental policies. In the 1980s, poor air quality in Mexico City caused one of the darkest environmental crises in the region, marking one of the country's first major socio-environmental conflicts. After several days of contingency actions in response to the presence of airborne contaminants, the federal government announced the Comprehensive Program Against Atmospheric Contamination of Mexico City Metropolitan Area (PICCA) 1990, which included five courses of action: *i*) improvement of fuels; *ii*) expansion of public transportation and establishment of strict control of vehicle emissions; *iii*) improvement (modernization) of combustion processes and control of emissions caused by industries and services; *iv*) ecological restoration; and *v*) environmental education and research and social participation. At that time, studies showed that the industrial sector accounted for 27.7 percent of the total air toxicity, only behind the transportation sector, which was responsible for 42.4 percent.²⁸

The program included an ecological package for PEMEX that featured 11 measures aimed at improving fuel quality as well as monitoring and reducing contaminating emissions caused by refining and storage.²⁹ Likewise, measures were taken with respect to electricity generation by the Jorge Luque and Valle de México thermoelectric plants. The measures adopted included replacing fuel oil with natural gas, suspending the operation of two generating units during winter, and installing continuous emissions monitors at the thermoelectric plants.³⁰

One of the immediate effects was the closing of the 18 de Marzo refinery in 1991, which had been in operation for 60 years in the northern part of Mexico City. Authors Genaro Hernández Camacho and Rubén Cantú Chapa studied the process of deindustrialization in the Azcapotzalco area based on different factors of analysis, including environmental damage and its impact on the health of the residents in areas close to the refinery.³¹ In 2010, after the refinery land had been abandoned for almost two decades, a project was kicked off to clean the property and convert it into an area of recovered green space. In 2012, the Bicentennial Park was inaugurated, occupying 55 hectares out of the refinery's original 175 hectares and costing an 800 million-peso investment.

The environmental crisis in Mexico City during the 1980s led to the growth of a social movement in favor of better environmental conditions and new urban regulations with respect to the presence of the hydrocarbons industry in urban centers. Despite the fact that it was considered a pillar of development in Mexico City, federal authorities forced the

hydrocarbons industry to leave the city, a measure taken to reduce the risk of social conflicts as well as great ecological damage.

Other socio-environmental conflicts broke out in other Mexican cities with a high urban concentration such as Guadalajara—at the time the second most populated city in Mexico. An accident occurred on World Earth Day in a PEMEX fuel storage plant located in La Nogalera district, a popular area of the city.

Together with the human casualties, there were serious effects for the environment, such as gasoline contamination in aquifers, which caused a drop in the resource's availability, as well as emissions of contaminating gases as a result of the explosion. The socio-environmental damage of the affected area extended more than 300,000 square meters, and 98 blocks of different constructions were destroyed. The impact included 1,632 properties, such as farms, businesses, hotels, residences, and industrial properties, affecting 13,930 residents. In terms of damage, 1,425 homes were destroyed and 1,575 partially damaged, in addition to 802 household goods, 637 vehicles, and the complete destruction of 450 small businesses.

The accident furthermore created extreme vulnerability due to urban poverty and the slow governmental response. Unlike in the case of Mexico City, where the response was to remove the industry from urban areas, the conflict in Guadalajara turned out to be more complicated due to the lack of expertise to properly handle the disaster, even though one of the first consequences was the resignation of the governor in the months immediately following the tragedy. The Office of the Attorney General of the Republic initiated proceedings against local government officials, although ultimately, they were not put on trial.

Unlike what happened in Mexico City, in the case of the explosions in Guadalajara, the federal government was more focused on blaming local governments for the response to the accident than on correcting public policy.³² Jorge Alonso identifies the explosions in Guadalajara as a critical point in terms of the public perception of PEMEX and a significant weakening of the Institutional Revolutionary Party (PRI) in national politics.³³ In 1995, the National Action Party (PAN) would win the gubernatorial election in the state, mainly thanks to the political opposition parties and a broad citizen movement that rejected the traditional corporatist ways of the PRI in resolving this type of conflict, as demonstrated by the governor's removal. Alonso also points out that the damage to PEMEX's image as a result of the explosions paved the way for a critical discourse regarding the actions of the quasi-state company in urban centers as well as the emergence of ideas regarding the need to modernize PEMEX and open the hydrocarbons industry up to the participation of other players.³⁴

We can identify two key moments of the urban socio-environmental conflict process. The first refers to the condition of social vulnerability in the context of a disaster in an urban area and the hazard posed by industrial activities in human settlements that have grown in an irregular manner in cities. Urban poverty, which includes an element of great vulnerability with respect to disasters, coupled with residents living in the close vicinity of

hazardous facilities, created the high risk that materialized in the explosions. On the other hand, the authorities failed to take preventive action in terms of safety, regulation, or re-zoning soil use, thereby increasing the population's high vulnerability.³⁵

The most relevant urban conflicts in Mexico, exemplified by the Mexico City and Guadalajara examples, illustrate the manner in which the federal government intervened to resolve them, whether through a change of public policy and issuing new regulations to the company involved, as in the case of Mexico City, or through party discipline and skirting legal responsibilities to instead pass blame to local officials. In both of these cases, the intervention of the highest decision-making bodies in the federal government to reduce the political fallout from the processes was evident.

The handling of such conflicts during the 1980s and 1990s highlighted some of the characteristics of the political system at that time, such the president's capacity to remove local rulers—like in the case of Jalisco—modify public policy by way of decree, and take control over core decisions of the company, as happened in Mexico City.

In both cases, the emergence of a population that organized itself in view of the damage caused by industry in urban centers had more political rather than legal consequences. Finally, we saw how the nationalistic discourse of development linked to PEMEX began to wear thin, and for the first time, the public demanded limits to industrial activity for safety reasons and to protect the environment.

Socio-environmental Conflicts in Rural Areas

Since the 1980s and 1990s, after the aforementioned cases of socio-environmental conflict in Mexico City and Guadalajara, PEMEX's industrial activities in urban centers began to be strictly regulated. Yet, socio-environmental conflict in rural areas was much less visible and handled much more on a local level, which therefore did not impact public opinion nationwide.

Unlike urban socio-environmental conflicts, which were characterized by human and ecological tragedies, socio-environmental conflicts in rural areas have been based on ownership and land use issues in areas where the hydrocarbons industry operates, as well as contamination effects on those properties.

In the most important petroleum region of the country—located on the coast of the Gulf of Mexico in the states of Tamaulipas, Veracruz, Tabasco, and Campeche—the economy, politics, and society revolve around the petroleum industry. There is little data on how socio-environmental conflicts are resolved in rural areas, as many of these cases are rendered invisible through the lack of press coverage or academic research specializing in investigating and monitoring such conflicts. The testimonies of people who have worked at PEMEX or who reside in the area have mentioned the existence of informal arrangements between local authorities, company executives, the trade union, community leaders, and small land owners. Negotiations supposedly involve both economic arrangements and the provision of public services for the communities, as well as jobs with the company granted by the union.

One of the few existing indicators to characterize socio-environmental conflict in rural areas involves recommendations issued by the National Human Rights Commission against PEMEX based on possible violations of complainants' rights. These complaints ranged from impact on their property rights and damage to the environment to violation of the right of physical integrity. The irregularities in terms of PEMEX's conduct, as covered by the CNDH recommendations, mainly consisted of breaches of legal and operational rules governing its performance.³⁶

The first public recommendation involves a farmer by the name of Remigio Ullin Palma, who contacted the CNDH to report persecution and harassment by State authorities. The farmer had been accused of damaging third-party property, criminal association, and other crimes, based on his role as a representative of *ejidatarios*, a group of small landowners in the coastal area of the state of Tabasco.

The persecution started after he and a group of farmers began compiling documented proof of illegal acts committed by PEMEX officials and the state of Tabasco, which included damage to rivers and brooks in the region due to hydrocarbons exploration and exploitation work conducted by PEMEX. These impacts were a result of the company's failure to adopt measures to avoid damage to the ecosystem and to residents of the community.³⁷

Previously, the farmers had reported property damage produced by a flood and destruction and damage to crops and lands, as well as embezzlement by PEMEX in the use of federal funds to compensate the affected producers and for work performed in a damaged area of approximately 15,719 hectares. Likewise, the affected parties filed a public complaint regarding damage to the ecosystem and the nation's assets due to modification of the regional lagoon system.

In this case, the CNDH recommended coordination between the state of Tabasco, the Ministry of Urban Development and Ecology, and PEMEX on a solution that would avoid flooding lands used for agropecuary activities, secure the expropriation of land to be used by the petroleum facilities, as well as rehabilitate the affected lands. Furthermore, the CNDH resolved that the *ejidatarios*, co-owners, and small land owners had to be compensated and indemnified for the damages in accordance with the law, and that the maintenance of equipment used for petroleum exploration and exploitation had to be guaranteed to avoid accidents that would affect the residents and the ecological balance.

Another recommendation was number 157/1995.³⁸ In this case, a group of co-owners reported that PEMEX was installing a poliduct from Tierra Blanca to Veracruz, which illegally affected their properties and possessions. They added that PEMEX employees were preventing the homeowners from doing any construction on their land, something the company had been doing for years, and that, since their dwellings were made from wood, PEMEX's legal representative considered their homes incipient and treated the residents as trespassers. The group also pointed out that state authorities refused to issue them their property titles, arguing that they were settling in a prohibited area.

The CNDH demonstrated that the complainants had legitimately purchased the properties, which they had occupied since 1964; that they built their homes from wood, in most cases due to a lack of economic resources; that the poliduct was installed by PEMEX after the homes were built; and that the complainants had complied with all of their obligations to document their legal ownership of the property, a fact that had been denied without any basis through arbitrary actions aimed at preserving PEMEX's interests. Based on the foregoing, it was recommended that the titles owed to the complainants should be issued, and a recommendation was issued to PEMEX's managing director to order employees to cease harassment of the complainants, and to compensate them in accordance with the law if the owners were forced to abandon their properties for safety reasons.

Recommendation 80/96,³⁹ dated August 23, 1996, referred to the explosion that took place on February 16, 1995, in the settlement of Plátano y Cacao in the Third Section of Municipio del Centro in Tabasco. It was sent to the governor of the state of Tabasco; the secretary of environmental affairs, natural resources, and fishing; the attorney general of the Republic; and the managing director of PEMEX.

The complainants reported that the development of the petroleum industry in the area led to a series of negative ecological impacts, among them three explosions in 1995 that caused serious damage and were not properly indemnified. Therefore, in addition to a review for compensation payments, the complainants requested that two schools be relocated, and that PEMEX transfer the pipelines that were crossing settlements or expropriate those lands so that the residents could be transferred to a safe location.

The CNDH determined that indemnification payments for the February 16, 1995, explosion had to be made in accordance with the guidelines set forth by the Commission of Evaluations of National Assets, and it recommended that the government of the state of Tabasco and PEMEX study the necessary actions so that the Interinstitutional Commission for Environmental Affairs and Social Development could conduct an assessment of the problems posed by petroleum facilities on human settlements in the rights of way, among other measures.

Afterwards, the CNDH received a complaint filed by Arturo Ramos Córdova, who stated that the seismological prospecting activities conducted by PEMEX caused different kinds of damage in the communities of several municipalities in Tabasco as well as the rupture of wells and cracks in pools, in addition to causing a drop in agricultural production; he argued that all of these issues were a violation of the human rights principles of legality, legal security, and property, in addition to jeopardizing human health, the ecological balance, and the region's environment.

Another case regarding breach of safety standards and regulations was filed regarding a PEMEX-owned oil platform. Recommendation 14/2009⁴⁰ was issued on February 19, 2009, identifying violations of the basic rights of legality, legal security, physical integrity, and safety in the workplace of the aggrieved parties. The complainants also stated that, in addition to a failure to comply with the applicable safety standards and regulations, there

was insufficient training of employees, which led to the deaths of 22 people and injuries to another 68 people in the Bay of Campeche.

In this case, the commission concluded that indemnities for the deceased workers and medical and psychological care for the injured needed to be paid. Furthermore, the commission recommended implementing adequate and permanent training of PEMEX workers not only regarding the performance of their tasks, but rather also for the protection of their physical integrity and life, with a special focus on the use of safety equipment available at each PEMEX company.

The foregoing are examples of rural socio-environmental conflicts that were addressed by the National Human Rights Commission. They are a sample of the actual socio-environmental conflicts that have arisen in the country, which, based on our prediction, will be more visible and relevant on the national agenda over the coming years.⁴¹

One characteristic of socio-environmental conflicts in rural areas in Mexico, specifically in the Gulf area, is that, unlike in other places in Latin America, they have not been accompanied by active participation from nongovernmental organizations, which typically jump onboard and exercise pressure on public opinion. The protagonists of the negotiations to settle these conflicts are community leaders as well as regional oil executives and local governments. As indicated earlier, there also has not been any investigative journalism or academic studies covering these occurrences, their scope, and the kinds of arrangements made to address these conflicts, beyond anecdotal evidence from those who participated in such agreements in an official capacity. The areas in which PEMEX operates in the Gulf of Mexico are opaque, with iron-fisted control both by officials as well as community leaders themselves. It does not need to be mentioned that many of these areas have a native population that is not strongly connected with national policy.

What little is known about socio-environmental conflicts in rural areas demonstrates a scenario similar to that of other regions of Latin American, where the main problem is ownership and use of land as well as the ecological damage caused by the hydrocarbons extraction industry. However, its social characterization is different insofar as these are areas in Mexico that have remained closed off from the influences of nongovernmental organizations and where it appears that settlements made through informal institutions are sufficient to prevent these conflicts from escalating to matters of national public concern. For the new players, the coast of the Gulf of Mexico appears to be a social playground in which informal negotiations between the company, local politicians, and communities have been prioritized through the exchange of benefits and losses, a viewpoint greatly supported by the characteristics mentioned in the preceding section. The area also remains a stronghold of the corporatist power management model and a stable political class. With the exception of Tabasco, which has been ruled by a Party of the Democratic Revolution (PRD) governor since 2013, the other states have been governed by the PRI for several decades, which has had a great impact on the way politics is conducted and the negotiations with the different players involved with the hydrocarbons industry.

Who Will Resolve Socio-environmental Conflicts during the Implementation of the Energy Reform in the Hydrocarbons Sector, and How Will They Be Resolved?

The above question is of utmost significance for the future of the hydrocarbons industry in the country as well as for environmental protection and the rights of communities in the areas where such activities will be conducted. It is predicted that the greatest risks of conflicts will appear in those areas where the new economic players will launch operations.

Most of the discussions regarding the reform focused on addressing relevant points of tension where greater conflict is foreseeable over the short term. It is not clear whether the privileged context PEMEX enjoyed to reduce and make socio-environmental conflicts virtually invisible, as described above, still remains. Based on the discussions and predictions of the reform with respect to this issue, we think that the very legislators who crafted the energy reform foresaw a scenario of greater conflict than in the case of the preceding period.

The new legislation contemplates scenarios to reduce risks, mainly related to ownership and enjoyment of land where extractive activities are conducted. Emphasis is placed on acknowledging residents' right to be consulted and on the compensation that will be paid to residents and native communities for use of their land; for such purpose, special agencies have been created to provide assistance during these processes.⁴² The right to be consulted is probably the most relevant one for predicting socio-environmental conflicts within the scope of the new legislation. Recognized initially by international law in Convention 169 of the International Labor Organization and later in the United Nations Declaration on the Rights of Indigenous Peoples in 2007, the right to be consulted took on its current form⁴³ and achieved constitutional standing through Mexico's constitutional reform in 2011, which recognizes the rules of international treaties in matters of protecting human rights.

The new regulatory entities' lack of experience in handling such conflicts, especially when involving foreign capital companies, makes it possible to predict that federal and state agencies are not the most efficient players to resolve these types of problems. Even so, the participation of the State as a sovereign and regulatory body makes it necessary to foresee how these types of socio-environmental conflicts will be resolved in the future.

Another possibility for resolving socio-environmental conflicts that may arise in Mexico over the short term is that State intervention is decreased to utilize the *expertise* of the participating industries—mainly international—and nongovernmental organizations to establish new rules for identifying and resolving these conflicts without intervention by State authorities. This therefore reduces the protagonist role the State has experienced so far in terms of resolving conflicts via political channels in the form of settlements from local political groups.

Finally, another foreseeable scenario is that the federal judiciary becomes an active arbitrator of socio-environmental conflicts, more than any other public body, meaning that conflicts will be resolved legally and formally rather than on the basis of extra-institutional arrangements, as is currently the case. The possibility that such conflicts will be disputed in court whenever the State is involved is due to the institutional autonomy achieved in recent years, which has made it possible to explore new avenues of resolution. In addition, three recent constitutional reforms provide a suitable institutional framework to increase the judiciary's participation in the sector.

In the rest of the Latin American region, this type of conflict is fiercely debated within the jurisdictional scope, using international human rights law. Likewise, it is important to note that, for the resolution of other types of socio-environmental conflicts related to topics such as water, mining, or use of transgenics, the judiciary already plays a significant role.

Recently, the federal judiciary has been one of the institutions with the greatest rate of growth in Mexico. Since the end of the 1990s, it has gained institutional autonomy and established itself as a relevant arbitrator within the scope of different conflicts, in addition to commencing interesting work in terms of the protection of human rights. This movement matches that of the rest of the Latin American region, where national judiciary branches have grown substantially over the same period.⁴⁴

Nowadays, the federal judiciary also has an institutional framework which, although not suitable, allows increased intervention in the resolution of socio-environmental conflicts, something it did not have until this past decade. The constitutional reforms make it possible to expand the roster of players that may initiate judicial proceedings, justifying the rationale of the judiciary's resolutions within the discourse regarding human rights. The three reforms are known as the *reform of human rights*, the *reform of amparo proceedings*, and the *reform of collective actions*.

The first, the *reform of human rights*, is recognized at a constitutional level as a component of international treaties to which Mexico is a party, which may include rules regarding the protection of human rights and require all authorities to promote, respect, protect, and guarantee such rights.⁴⁵ The second reform, known as the *reform of amparo proceedings*, refers to the modification of procedural rules for *amparo* proceedings—a historical means for the protection of human rights—to incorporate the legitimate interests of individuals and social players in different cases, permitting a broader group of players to initiate *amparo* proceedings insofar as socio-environmental issues are concerned.⁴⁶ The third reform, called the *reform of collective actions*, incorporates in Mexican law so-called *class actions* under Anglo-Saxon Law, which represents an *ad hoc* procedure to seek repair and prevent damage caused by the energy industry before the judiciary branch.⁴⁷

Comparatively, in Latin America, strategic litigation has been the legal tool most popular for nongovernmental organizations and communities to protect their rights and interests. Considering that the communities and nongovernmental organizations that intervene in socio-environmental conflicts act in an organized manner through regional or global

networks, the international human rights law has become a common framework for protecting the environment and reducing the impact that may be caused by energy industry projects, permitting an intense dialogue based on common terms.⁴⁸ Furthermore, the new procedural rules for *amparo* proceedings, which permit broader legitimate interests and contemplate collective actions, forebode the intensification of their use by social players interested in socio-environmental conflicts.

Combined with the autonomy of the national judiciary branches, the Inter-American Human Rights System, with strong *momentum* through the Inter-American Court of Human Rights, has strengthened the emergence of a Latin American *ius commune*, which motivates the jurisprudential dialogue of the different judiciary branches in the region on human rights matters.⁴⁹ In countries such as Colombia, Brazil, or Argentina, the intervention of the domestic courts has been relevant to resolving socio-environmental conflicts. In these countries, a relevant jurisprudence has developed that uses international human rights law as the basis of interpretation to resolve these types of conflicts. As explained by Balakrishnan Rajagopal, it is noteworthy that international law has taken on significant momentum after World War II thanks to the influence of intellectuals and social movements in Third World countries, which have been able to express resistance to contemporary ideas of development in legal terms; for this resistance, the construction of rights other than those of the liberal tradition is one of the most relevant characteristics.⁵⁰

The Inter-American Human Rights System is one of the strongest supporting elements for the resolution of socio-environmental conflicts at the national level. Article 26 of the American Convention on Human Rights addresses the duty of States to promote the progressive development of economic, social, and cultural rights. The “Protocol of San Salvador” regarding economic, social, and cultural rights establishes, in its Article 11, the right of all persons to a healthy environment and requires the participating States to promote the protection, preservation, and improvement of the environment.

The jurisprudence of the Inter-American Court of Human Rights in these matters has not used such articles until this present time. Rather, in its reflections regarding the right of property in Article 21 of the American Convention on Human Rights, the court has established a series of interpretations that protect indigenous and tribal communities, and their land ownership and relationship with the environment. The relevant jurisprudence established by the court with respect to indigenous and tribal community property rights includes granting alternative land, acknowledging customary laws of indigenous communities, the right of indigenous and tribal people to live freely on their territories, and the State’s obligation to consult with these communities.⁵¹

A new context of disputes involves judges as arbitrators of these types of conflicts, which traditionally were resolved by federal and local administrative authorities whenever PEMEX was involved. New disputes create a new playing field with new economic costs for companies as well as other actors.

It is important to also remember that not only does the Inter-American Human Rights System intervene in this matter, but rather, according to Gabriel Cavazos in one section of this book, foreign capital investments could be protected within the scope of the North American Free Trade Agreement, which would allow investors to sue Mexican entities to defend themselves in accordance with Chapter 11 of the agreement in the event that they believe they are being treated in a discriminatory fashion.

Therefore, it is likely that, as a result of the energy reform, both the incidence as well as the visibility of socio-environmental conflicts related to hydrocarbons activity will increase with the participation of new players in the industry. The new context makes it possible to foresee that the negotiating capacity of local politicians will be reduced, considering that PEMEX will cease to be the only relevant player in the energy sector. The new context of conflict might no longer be resolved through extra-institutional arrangements and become more formalized and legal, which would allow the federal judiciary to become the new arbitrators of this issue.

Acknowledgements

To the memory of my friend Professor Steve Zamora (Go Bears!)

Endnotes

¹ Mireya Ímaz Gispert, (ed), *The environmental dimension at the dawn of the twenty-first century: Perspectives from diversity, National Environmental Survey* (Mexico City, Federal District: Institute for Legal Research-UNAM, 2015), p. 68.

² Guillermo Fontaine, *The price of oil: Socio-environmental conflicts and governability of the Amazon region* (Quito: FLACSO-IFEA, 2003), p. 1.

³ Ibid., page 25.

⁴ Ibid., page 32.

⁵ César Nava Escudero, *Environmental studies* (Mexico City, Federal District: Institute for Legal Research-UNAM, 2011), p. 10.

⁶ Marisol Anglés Hernández points out that there are three scenarios native people face with respect to development projects: social exclusion, structural discrimination, and social vulnerability. Marisol Anglés Hernández, “The right to development and natural resources,” in *No rights: Exclusion and discrimination in current Mexico* (Mexico City, Federal District: IIJ-UNAM, 2014), p. 269.

⁷ The concept “accumulation through dispossession,” by author David Harvey is useful for understanding the contemporary dynamics in the global economy with respect to the tensions generated by different forms of natural resources extraction. David Harvey, *The New Imperialism* (Oxford: Oxford University Press, 2003).

⁸ Fontaine, *The Price of Oil*, p. 19.

⁹ Ibid., p. 20.

¹⁰ Recently, a regional movement aimed at nationalizing foreign capital companies or levying high tax rates for extraction activities has arisen in countries such as Ecuador, Argentina, and Bolivia. Called the “new extractivism,” in spite of being based on criticism of the traditional liberal model, there is no evidence that they provide a substantial benefit for Latin American societies, are friendlier insofar as the environment is concerned, or are more respectful of communities settled in extraction enclaves. See Eduardo Gudynas, “The new progressive extractivism in South America. Thesis regarding an old problem under new terms,” in *Colonialisms of the Century XXI* (Barcelona: Icaria Editorial, 2011), p. 75-92.

¹¹ Fontaine, *The Price of Oil*, p. 20-21.

¹² The clearest example of disputes regarding hydrocarbons-related socio-environmental conflicts in the region is the Chevron-Texaco vs. Ecuador case. In this respect, see Nathalie Cely “Balancing Profit and Sustainability in Ecuador: Lessons learned from the Chevron Case,” *Duke Environmental Law & Policy Forum*, Vol. XXIV Spring (2014), p. 353-373. Currently, the U.S. company has been sentenced by the Ecuadorian judiciary branch to pay US\$9.5 billion for ecological damage caused to the Ecuadorian Amazon.

¹³ This generates a conflict of interests and policies, since it is precisely the natural resources that are most pressured by transnational companies in terms of exploitation. Within this scenario, we may refer to large projects, like the “La Parota” dam, which involves the displacement of the Nahuatl population from Guerrero; “Paso de la Reina” in Oaxaca, which is going ahead despite strong opposition by the Chatinos, Mixtecos de la Costa, Afro-Mexicans, and Mestizo farmers of Costa Chica; and the wind power project in the southern zone of the Isthmus of Tehuantepec, which has heavy investment of Spanish capital. Other examples include the 550 concessions for the mining exploration and exploitation on 1,583,928 hectares of the national territory; another megaproject by Grupo Acerero del Norte to extract iron from a large swath of land crossing 11 highly marginalized indigenous municipalities (Chatinos, Mixtecos, Zapotecos, and Chontales) under the surface mining model in Salina del Marqués, Oaxaca; and a railroad and pier for export to the Pacific Ocean in the Port of Salina Cruz, also in Oaxaca. See Angles Hernández, “The right to develop,” p. 285.

¹⁴ For example, the Latin American Observatory of Environmental Conflicts is monitoring two cases in Mexico related to energy projects as well as five mining projects, although not in the hydrocarbons industry. Available at: <http://www.olca.cl>. Accessed on January 25, 2016.

¹⁵ Adolfo Gilly, *Cardenism, a Mexican utopia* (Mexico City, Federal District: Era, 2001).

¹⁶ See Stephen Zamora, et al., *Mexican Law* (Oxford: Oxford University Press, 2005), especially Chapter 1 (“The history of Mexican Law”) for more historical references on the relationship between policy and law during the post-revolutionary period in Mexico.

¹⁷ Gilly, *Cardenism*, p. 430.

¹⁸ For an example of the current administration’s efforts to connect the energy reform to the policies of Cárdenas, see “The reform of President Lázaro Cárdenas,” available at: <http://www.presidencia.gob.mx>. Accessed on January 28, 2016.

¹⁹ Regarding the building and effectiveness of institutions in Mexico and the energy reform, see Héctor Fix-Fierro, “Construction of the State, legal modernization and institutional efficiency in Mexico: Notes regarding the Energy reform 2013-2014,” of this same volume.

²⁰ Anglés Hernández, “The Right to Develop,” p. 274.

²¹ Fix-Fierro, “Construction of the State.”

²³ The following paragraphs are very illustrative: “In the 40s, the country chose a thorough process of industrialization, based on substituting imports. To do so, in Mexico, new uses and production technologies were established, and the emerging industrial park was installed in the proximity of its largest markets, located basically in Mexico City and its surroundings [...] During those periods, it was thought that it was necessary to multiply the production activity of the city as a powerful center of development, from which the economy could be driven throughout the country. Special incentives were created for the industry, both fiscal ones as well as infrastructure, at the same time as a system was configured of relative prices which inclined the terms of exchange in favor of the city as compared to rural areas. At its time, this development concept produced favorable balances, and Mexico experienced several years of growth combined with stability and a multiplication of expectations and actual opportunities for a population that was growing

very quickly. Greater welfare was counteracted by the generation of growing volumes of contamination." *Comprehensive Program against Atmospheric Contamination, a shared commitment* (Mexico City, 1990) p. 36. Available at: www.centro.paot.org.mx/documentos/varios/prog_inte_atmosferica.pdf.

²⁴ Department of Applied Research and Opinion of the Institute for Legal Research, *Tertiary Oil of the Gulf Project, Design of Strategies of social involvement at a municipal and community level* (Mexico City, Federal District: UNAM/PEMEX, 2008).

²⁵ Alberto M. Aguirre M., "Opacity in Pemex?" *El Financiero*, July 30, 2014.

²⁶ National Human Rights Commission. *Recommendation No. 57/2009*. Case of Messrs. Agustín Miguel Badillo Cruz, Ana Lilia Pérez Mendoza, and members of the magazine Contralínea, September 14, 2009.

²⁷ See Ana Elena Fierro, "Accountability, transparency, and responsibility within the scope of the energy reform in Mexico," in this same volume.

²⁸ Nava Escudero, *Environmental Studies*, p. 40.

²⁹ *Comprehensive Program against Contamination...*, p. 36. Retrieved from: www.centro.paot.org.mx/documentos/varios/prog_inte_atmosferica.pdf.

³⁰ Ibid., p. 39.

³¹ Genaro Hernández Camacho and Rubén Cantú Chapa, "Deindustrialization in the metropolis: the study of Azcapotzalco, Federal District," in *Mundo Siglo XXI*, CIECAS-IPN, Number 35, Vol. X (2015): p. 85-100.

³² ADN Politico, "Carlos Salinas: The explosions of 1992 in Guadalajara," *adnpolitico.com*, February 3, 2013. Retrieved from: <http://www.adnpolitico.com/gobierno/2013/02/03/carlos-salinas-las-explosiones-de-1992-en-guadalajara>.

³³ Jorge Alonso, "The spring explosions in Guadalajara," *New Anthropology, Journal of Social Sciences*, Volume XII Number 42 (July 1992): p. 131-154.

³⁴ Ibid.

³⁵ *Disasters and Society*, July-December 1993, Number 1, Year 1, "Special: The explosions of Guadalajara," p. 4.

³⁶ The National Human Rights Commission was created in 1990 to investigate human rights violations and issue recommendations to the authorities, although it cannot impose sanctions based on the results of its procedures. For proper analysis of its limits, see José de Jesús Gudiño Pelayo, *The State against itself* (Mexico: Limusa, 1998).

³⁷ The August 1990 study "Ecological Changes caused through the opening of Boca de Panteones and the petroleum exploitation in the area of impact of the Pajonal-Machona lagoons, H. Cárdenas, Tabasco," showed the changes the area suffered as a result of the opening of "Boca de Panteones." It indicated that such phenomenon was the result of the

entry of water into the lagoon and its spill into the estuarine and grassland area. The foregoing caused changes in the conditions, i.e., displacement of animal populations and vegetal organisms. Furthermore, the ecological changes had repercussions on farming activities, basically agricultural and cattle-raising operations, considering that, when their lands were impacted and grasslands disappeared, they experienced an abrupt change in productive activities.

³⁸ National Human Rights Commission. *Recommendation 157/1995*. Case of the residents of the *ejido* El Coyol, Veracruz. December 21, 1995.

³⁹ National Human Rights Commission. *Recommendation 080/1996*. Case of the explosion which occurred on February 16, 1995, in the settlement of Plátano y Cacao, Third Section, Municipio del Centro, Tabasco. August 29, 1996.

⁴⁰ National Human Rights Commission. *Recommendation No. 14/2009*. Case of the Usumacinta Platform of Pemex in the Bay of Campeche. February 19, 2009.

⁴¹ According to Víctor Toledo, Universidad Nacional Autónoma de México researcher, there are 420 socio-environmental conflicts related to mining, energy, and water in the country. According to his data, this number increased from 280 to 420 over the course of a year-and-a-half. Out of the total conflicts, 80 concern energy issues. “There are 420 socio-environmental conflicts in Mexico: researcher,” *Newspaper La Jornada*, February 10, 2016: <http://www.jornada.unam.mx/2016/02/10/sociedad/038nlsoc>. Accessed February 10, 2016.

⁴² The topic of land use and utilization is addressed in detail in another chapter of this same volume; thus, it is only discussed in general terms here.

⁴³ Article 32, Paragraph 2 establishes that “the States must carry out consultations and will cooperate in good faith with the interested indigenous peoples through agreement with their representative institutions for the purpose of obtaining their free and informed consent prior to approving any project which may affect their lands or territories and other resources, in particular in connection with the development, use, or exploitation of mineral, water, or other type of resources.”

⁴⁴ For an interesting discussion in this respect, see Rodrigo Uprimny, et al., *Justice for all? The judiciary system, social rights, and democracy in Colombia* (Bogotá: Editorial Norma, 2006).

⁴⁵ Pedro Consult Salazar and Miguel Carbonell (eds.), *The constitutional reform of Human Rights: a new paradigm* (Mexico City, Federal District: Instituto de Investigaciones Jurídicas, Universidad Nacional Autónoma de México, 2011).

⁴⁶ Eduardo Consult Ferrer Mac-Gregor and Rubén Sánchez Gil, *The new amparo proceedings. Guide for the constitutional reform and the new Amparo Proceedings* (Mexico City, Federal District: Porrúa, 2012).

⁴⁷ Consult Jean Claude Tron Petit (ed.), *Collective actions under Mexican law* (Mexico: Tirant Lo Blanch, 2013).

⁴⁸ Balakrishnan Rajagopal, *International Law from Below, Development, Social Movements and Third World Resistance* (Cambridge: Cambridge University Press, 2004), p. 4-5.

⁴⁹ Armin von Bogdandy, et al. (ed.), *Ius Constitutionale Commune in America Latina. Traits, potential, and challenges* (Mexico City, Federal District: Universidad Nacional Autónoma de México/Max Planck Institute/ Instituto Iberoamericano de Derecho Constitucional, 2014).

⁵⁰ Rajagopal, *International Law*, p. 4-5.

⁵¹ Case of the Indigenous Peoples Kuna de Madungandí and Embera de Bayano and their members v. Panama. Sentence October 14, 2014; Case of the Indigenous Community Xákmok Cásek vs. Paraguay. Sentence August 24, 2010.